

REMARKS

Claims 1-59 were pending as of the action mailed on July 10, 2007. Claims 1, 28, 29, 56, 57, and 59 are in independent form.

Reexamination of the application and reconsideration of the action are respectfully requested in light of the following remarks.

Interview Summary

The applicant would like to thank Examiner Emerson for his courtesy and professionalism in conducting an interview on October 30, 2007, after issuance of the Office Action dated July 10, 2007. The following is a summary of the interview:

1. No exhibit or demonstration was conducted.
2. The pending §102 and §103 rejections were discussed.
3. The general nature of the cited reference Barber was discussed.
4. Examiner Emerson agreed that Barber does not anticipate "a feature common," as recited by claim 1, for example.
5. No other pertinent matters were discussed.

Section 102 Rejections

Claims 1-3, 8-23, 25, 27, 29-31, 34-51, 53, 55, 57-59 stand rejected under 35 U.S.C. § 102(b) for allegedly being unpatentable over Barber et al. (US Patent 5,751,286).

Claim 1 and its dependent claims

Claim 1 recites, in part, combining information pertaining to a feature common to a plurality of reference objects to produce composite reference information representing criteria for a search; and comparing the composite reference information to information pertaining to the same feature for each respective one of a plurality of media objects in a collection of media objects to identify one or more media objects.

In the statement of rejection, the examiner asserts that

Barber discloses a method for searching a collection of media objects comprising: combining information pertaining to a feature common to a plurality of reference objects to produce composite reference information representing criteria for a search; and comparing the composite reference information to information pertaining to the same feature for each respective one of a plurality of media objects in a collection of media objects to identify one or more media objects; wherein a non-Euclidian function is used either to combine the information pertaining to the feature, or to compare the composite reference information to information pertaining to the same feature. *See*, pages 2-3, ¶ 4 of Office Action.

For at least the reasons set forth below, the applicant respectfully disagrees with this characterization.

Barber discloses predefined image characteristic and includes a set of one or more thumbnails (icons) corresponding to various values of the image characteristic arranged by a user into an example scene. *See*, col. 3, lines 9-22; and col. 9, lines 62-67. In contrast, claim 1 recites, in part, combining information pertaining to a feature common to a plurality of reference objects to produce composite reference information representing criteria for a search. Arranging thumbnails into an example scene is analogous to creating a collage of images; Barber is not understood to disclose a feature common, nor the use of a feature common, to a plurality of reference objects.

Furthermore, Barber is not understood to disclose reference objects. Barber only discloses the use of thumbnails that represent predefined image characteristics. *See*, col. 9, lines 5-24. Reference objects are not limited to predefined image characteristics.

In addition, Barber only discloses retrieving images from an online image database. *See*, col. 2, lines 36-42; and abstract. Alternatively, claim 1 recites, in part, a method for searching a collection of media objects. Media objects are not limited to images.

For at least the foregoing reasons, the applicant respectfully submits that Barber does not teach or suggest the method of claim 1. Claims 2-3, 8-23, 25, and 27 depend from claim 1 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 1.

Claim 8 is separately allowable for at least the following additional reasons. Claim 8 recites, in part, a second feature common to the plurality of reference objects. As discussed

previously, Barber does not teach or suggest any features common to a plurality of reference objects. For at least the reasons set forth above with respect to claim 1, claim 8 is allowable over Barber. Claims 9-13 depend from claim 8 and are allowable for at least the same reasons as claim 8.

Claims 20-23 and 25 depend from claim 8 and also are allowable for at least the same reasons as claim 8. Claim 20 is separately allowable for at least the following additional reasons. Claim 20 recites, in part, the information pertaining to the feature and the information pertaining to the second feature is expressed as a feature vector of components. For at least the same reasons set forth previously, Barber is not understood to disclose either a feature or a second feature. Barber only discloses independent image characteristics. Therefore, contrary to the examiner's assertion, Barber does not teach or suggest a feature vector of components. Claims 21-24 and 25 depend from claim 20 and are allowable for at least the same reasons as claim 20.

Claim 29 and its dependent claims

Claim 29 is directed to a computer program product on a computer-readable medium and includes instructions operable to cause a programmable processor to combine information pertaining to a feature common to a plurality of reference objects to produce composite reference information representing criteria for a search; and compare the composite reference information to information pertaining to the same feature for each respective one of a plurality of media objects in a collection of media objects to identify one or more media objects. For at least the same reasons set forth above with respect to claim 1, claim 29 is allowable over Barber.

Claims 30-31, 34-51, 53, and 55 depend from claim 29 and are allowable for at least the same reasons set forth above with respect to claim 29.

Claim 34 is separately allowable for at least the following additional reasons. Claim 34 recites, in part, the intersection of the information for the reference objects. The examiner asserts that the determination of an intersection histogram intersection is discussed in cited art. *See*, page 11, ¶ 28 of Office Action. The cited art discloses that an intersection histogram is computed for each image in the database and for a given query image. *See*, col. 2, lines 4-8.

Neither the images in the database nor the query image are being used as a reference object. Contrary to the examiner's assertion, the cited art does not teach or suggest the intersection of the information for the reference objects.

Claim 36 is directed to a computer program product and includes a second feature common to the plurality of reference objects. For at least the same reasons set forth above with respect to claim 8, claim 36 is allowable over Barber. Claims 37-41, 48-51, and 53 depend from claim 36 and are allowable for at least the same reasons as claim 36.

Claim 48 is directed to a computer program product and includes the information pertaining to the feature and the information pertaining to the second feature is expressed as a feature vector of components. For at least the same reasons set forth above with respect to claim 20, claim 48 is allowable over Barber. Claims 49-51 and 53 depend from claim 48 and are allowable for at least the same reasons as claim 48.

Claim 50 is separately allowable for at least the following additional reasons. Claim 50 recites, in part, each feature vector includes one or more components representing metadata associated with the corresponding reference or media object; and combining the one or more components representing metadata associated with each reference object according to a second combination function. Contrary to the examiner's assertion, Barber does not teach or suggest metadata, or the use of metadata. Barber only discloses that characteristics of color, texture, size and shape are quantifiable. *See*, col. 6 lines 61-62.

Claim 57 and its dependent claims

Claim 57 is directed to a system and includes means for combining information pertaining to a feature common to a plurality of reference objects to produce composite reference information representing criteria for a search; and means for comparing the composite reference information to information pertaining to the same feature for each respective one of a plurality of media objects in a collection of media objects to identify one or more media objects. For at least the same reasons set forth above with respect to claim 1, claim 57 is allowable over Barber.

Claim 58 depends from claim 57 and is allowable for at least the same reasons as claim 57.

Claim 59

Claim 59 is directed to a system and includes means for combining information pertaining to two or more features common to a plurality of reference objects to produce composite reference information representing criteria for a search, wherein the information is expressed as a feature vector of components. For at least the same reasons set forth above with respect to claims 1, 8, and 20; claim 59 is allowable over Barber.

Section 103 Rejections

Claims 4-7, 32, and 33 stand rejected under 35 U.S.C. § 103(a) for allegedly being unpatentable over Barber in view of Jain et al. (US Patent 5,911,139).

Claims 4-7

Claims 4-7 depend from claim 1 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 1.

Claim 5 is separately allowable for at least the following additional reasons. Claim 5 recites, in part, combining information pertaining to a feature common to a plurality of reference objects includes combining information for different types of objects. The examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate more than one type of media into the query search. *See*, page 21, ¶¶ 55-56, of Office Action. The applicant respectfully disagrees. Jain is directed to a system and method for content-based search and retrieval of visual objects. *See*, abstract. Jain only discloses using visual attributes and features for the retrieval of visual objects. *See*, col. 3, lines 60-67. Therefore, Jain does not teach or suggest combining information for different types of objects.

Claims 32-33

Claims 32-33 depend from claim 29 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 29.

Claim 33 is separately allowable for at least the following additional reasons. Claim 33 is directed to a computer program and includes instructions to combine information pertaining to a feature common to a plurality of reference objects include combining information for different types of objects. For at least the same reasons set forth above with respect to claim 5, claim 33 is allowable over the combination of Barber and Jain.

Claims 24, 26, 28, 52, 54, and 56 stand rejected under 35 U.S.C. § 103(a) for allegedly being unpatentable over Barber in view of Berman et al. (US PG Pub 2002/0002550).

Claims 24 and 26

Claims 24 and 26 depend from claim 21 and also are submitted to be allowable for at least the same reasons set forth above with respect to claim 21. Claims 24 and 26 are separately allowable for at least the following additional reasons. The examiner asserts that Berman discloses a Min and Max function used to combine feature vectors for comparison. *See*, page 24, ¶ 71 of Office Action. The applicant respectfully disagrees.

Berman discloses generating relational vectors for a triangle trie. *See*, ¶ [0057]. Relational vectors are not feature vectors. *See*, ¶ [0016]. Alternatively, claims 24 and 26 recite feature vectors. Furthermore, Berman discloses using the Min and Max functions to operate on the returned set of images. *See*, ¶ [0099] (define $R(T,Q,t)$ as the set of images returned); and ¶ [0100]-[0104] (Min, Max reduce the size of the returned set R). Alternatively, the methods of claims 24 and 26 use the Min or Max function on feature vectors. Therefore, Berman does not cure the deficiencies of Barber, and claims 24 and 26 are allowable over the combination of Barber and Berman.

Claim 28

Claim 28 is directed to a method and includes combining information pertaining to two or more features common to a plurality of reference objects to produce composite reference information representing criteria for a search, wherein the information is expressed as a feature vector of components and comparing the composite reference information to information pertaining to the same feature for each respective one of a plurality of the media objects in the collection of media objects. For at least the same reasons set forth above with respect to claims 1 and 20, claim 28 is allowable over Barber and Berman.

Claim 28 is separately allowable for at least the following additional reasons. Claim 28 includes using a Min or Max function on feature vectors. For at least the same reasons set forth above with respect to claims 24 and 26, claim 28 is allowable over the combination of Barber and Berman.

Claims 52 and 54

Claims 52 and 54 depend from claim 49 and are allowable for at least the same reasons set forth above with respect to claim 49. Claims 52 and 54 are separately allowable for at least the following additional reasons. Claims 52 and 54 include using a Min or Max function on feature vectors. For at least the same reasons set forth above with respect to claims 24 and 26, claims 52 and 54 are allowable over the combination of Barber and Berman.

Claim 56

Claim 56 is directed to a computer program product on a computer-readable medium and includes instructions operable to cause a programmable processor to combine information pertaining to two or more features common to a plurality of reference objects to produce composite reference information representing criteria for a search, wherein the information is expressed as a feature vector of components and compare the composite reference information to information pertaining to the same feature for each respective one of a plurality of the media objects in the collection of media objects. For at least the same reasons set forth above with

respect to claim 1, claim 56 is allowable over Barber and Berman. Claim 56 is separately allowable for at least the following additional reasons. Claim 56 includes instructions to use a Min or Max function. For at least the same reasons set forth above with respect to claims 24 and 26, claim 56 is allowable over the combination of Barber and Berman.

Conclusion

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

The applicant respectfully requests that all pending claims be allowed. The applicant requests a one-month extension of time to file this response to and including Nov. 12, 2007. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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